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### **A Novel Class Nano Carrier Containing Poglitzone for the Management of Diabetes**

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**N**anosponges are novel class nanostructures that exhibit remarkable potential as a drug host system for the improvement in biopharmaceutical properties. Poglitzone is poorly water soluble and a potent antidiabetic activity. This work aims to formulate and evaluate nanosponges containing Poglitzone. This was successfully prepared by emulsion solvent diffusion method, by using various ratios of polyvinyl alcohol and methyl cellulose. The drug loaded nanosponges characterized using DSC, FTIR, XRD AND SEM for surface morphology. DSC and FTIR resulted with no drug polymer interactions. The particle size of drug loaded nanosponges ranged from 235nm to 870 nm with zeta potential between -16mV to -24mV and the surface morphology was found to nearly round spongy shape with nano pores of size 4 to 10 nm. Drug entrapment efficiency between 40% to 75% which depends on the ratio of polymers. In-vitro dissolution study was carried out using dialysis membrane and. All formulations analyzed according to various release kinetic models and it was found that it follows zero order release kinetics

### **Biography**

Shripathy D has perusing his PhD under Rajiv Gandhi University of Health Sciences Karnataka Bangalore. He has presented and published number of research papers in national and international conferences and journals. He is Member Indian Pharmaceutical Association and International Pharmaceutical Federation (FIP). Research areas are design of novel drug delivery systems and nano formulations. Professional Recognition, Awards, Achievements includes research grants from Rajiv Gandhi University of health sciences Karnataka Bangalore. Principal coordinator for research work. Received best paper presentation award during international medicinal and Pharma congress held at Bangkok july-2018

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